

THE UNITED STATES PATENT AND TRADEMARK OFFICE

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| In re Application of: |) | |
|------------------------------|---|----------------------|
| Gary K. Michelson |) | |
| Serial No.: 08/480,908 |) | Group Art Unit: 3764 |
| Filed: June 7, 1995 |) | Examiner: M. Brown |
| For: THREADED FRUSTO-CONICAL |) | |
| INTERBODY SPINAL FUSION |) | |
| IMPLANTS |) | • |
| | | |

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 RECEIVED

OCT 0 3 2003

TECHNOLOGY CENTER HS700

Sir:

<u>UNDER 37 C.F.R. § 1.97(c)</u>

Further to the Information Disclosure Statements filed July 9, 1997; May 8, 1998; January 14, 1999; June 30, 1999; November 3, 1999; and March 20, 2000, and pursuant to 37 C.F.R. §§ 1.56 and 1.97(c), applicant brings to the attention of the Examiner the documents listed on the attached Form PTO-1449. This Information Disclosure Statement is being filed after the events recited in Section 1.97(b) but, to the undersigned's knowledge, before the mailing date of either a Final Action or a Notice of Allowance. Under the provisions of 37 C.F.R. § 1.97(c), this Information Disclosure Statement is accompanied by a fee of \$180.00 as specified by Section 1.17(p).

Copies of the following listed documents are enclosed:

- 1. U.S. 3,719,186
- 2. Cloward, Ralph B.; Surgical Techniques for Lumbar Disc Lesions; Codman; Signature Serial 3.
- Cloward, Ralph B.; Ruptured Cervical Intervertebral Discs: Removal of Disc & Osteophytes & Anterior Cervical Interbody Fusion (A.C.I.F.); Codman; Signature Series 4.
- 4. Cloward, Ralph B.; Recent Advances in Surgery of the Cervical Spine; pp. 285-293; German Society For Neurosurgery: Volume 2 Cervical Spine Operations; Excerpta Medica.

- 5. Hutter, Charles George; Spinal Stenosis and Posterior Lumbar Interbody Fusion; pp. 103-114; Clinical Orthopaedics and Related Research; No. 193; The Association of Bone and Joint Surgeons.
- 6. Lin, Paul M.; Posterior Lumbar Interbody Fusion; pp. 114-122; Charles C. Thomas; Springfield, Illinois.
- 7. Lin, Paul M.; Lumbar Interbody Fusion: Principles and Techniques in Spine Surgery; Techniques and Complications; pp. 81, 98, 120, 146, 173, 180-184, 204, 224, 225, 231; Aspen Publishers, Inc.; 1989.
- 8. Tan, S.B.; A Modified Technique of Anterior Lumbar Fusion with Femoral Cortical Allograft; pp. 83-93; The Journal of Orthopaedic Surgical Techniques, Volume 5, No. 3, 1990.
- 9. Muller, M.E.; Manual of Internal Fixation: Techniques Recommended by the AO Group; Second Edition, Expanded and Revised; pp. 3-20, 27-41, 53-58, 71-78, 94, 311, 320; Springer-Verlag; 1979.
- 10. Hierholzer, G.; Manual on the AO/ASIF Tubular External Fixator; pp. 85-91; Springer-Verlag; 1985.
- 11. Heim, Urs; Small Fragment Set Manual: Technique Recommended by the ASIF-Group; pp. 5-7, 10, 20, 21, 30; Springer-Verlag; 1974.
- 12. Harmon, Paul H.; Anterior Excision and Vertebral Body Fusion Operation for Intervertebral Disk Syndromes of the Lower Lumbar Spine: Three- to Five-Year Results in 244 Cases; pp. 107-127; Clinical Orthopaedics and Related Research, No. 26, J.B. Lippincott Company, 1963.
- 13. Harmon, Paul H.; A Simplified Surgical Technic for Anterior Lumbar Diskectomy and Fusion; Avoidance of Complications; Anatomy of the Retroperitoneal Veins; pp. 130-143; Clinical Orthopaedics and Related Research, No. 37, J.B. Lippincott Company, 1964.
- 14. Bullough, Peter G.; Atlas of Spinal Diseases; Figure 5.7; J.B. Lippencott Company; 1988
- 15. Canale, S. Terry; Campbell's Operative Orthopaedics; Volume 3, 9th Edition; pp. 2191, 2216, 2459; Mosby, 1998.

Copies of English language abstracts, Search Reports, or in some cases where available, more complete translations or U.S./U.K. related patents of the listed non-English documents (previously cited) are attached.

Applicant respectfully requests that the Examiner consider the listed documents and indicate that they were considered by making appropriate notations on the attached form.

Please note that in the Information Disclosure Statements submitted January 14, 1999 and June 30, 1999, ES 283078 is related to U.S. Patent No. 4,877,020; JP 57-29348 is related to U.S. Patent No. 4,349,921; and JP 61-122859 is related to U.S. Patent No. 4,759,766, all of which were also submitted in the Information Disclosure Statements dated June 30, 1999. Additionally, the applicant submits herewith the following U.S./U.K. related patents corresponding with the following non-English references:

| GB 1291470 | relates to | DE 1961531 |
|--------------|------------|------------|
| GB 1492990 | relates to | DE 2446039 |
| GB 1531487 | relates to | FR 2295729 |
| US 5,279,292 | relates to | DE 4104359 |

The present application Serial No. 08/480,908 is a continuation-in-part of application Serial No. 08/396,414, now U.S. Patent No. 6,080,155, which is a continuation-in-part of application Serial No. 08/074,781, now U.S. Patent No. 5,484,437, which is a continuation-in-part of application Serial No. 07/968,240, now U.S. Patent No. 5,741,253, which is a continuation of application Serial No. 07/698,674, now abandoned, which is a divisional of application Serial No. 07/205,935, now U.S. Patent No. 5,015,247.

Applicant brings to the Examiner's attention that the '253 patent, the '437 patent, and U.S. Patent No. 6,096,038 (a divisional of the '437 patent) were the subject of litigation in the United States District Court for the Western District of Tennessee, Western Division, Case No. 99-2656GV, hereinafter referred to as Litigation 3 ("Lit. 3"). The claims of the '437 patent are generally directed to a method for inserting an implant. The claims of the '038 patent are generally directed to instruments used for preparing adjacent vertebrae to receive an implant and/or inserting an implant.

In Litigation 3, the Defendants asserted that various references are pertinent to the issue of validity of the '437 patent, the '253 patent, and the '038 patent under 35 U.S.C. §§ 102 and 103. Applicant notes for the Examiner on the attached Form PTO-1449 in the column for the Examiner's initials the references identified by Defendants in Litigation 3 as being allegedly pertinent to the '437 patent by the designation "Lit. 3a." Applicant notes for the Examiner on the attached Form PTO-1449 in the column for the

Examiner's initials the references identified by Defendants in Litigation 3 as being allegedly pertinent to the '253 patent by the designation "Lit. 3b." Applicant notes for the Examiner on the attached Form PTO-1449 in the column for the Examiner's initials the references identified by Defendants in Litigation 3 as being allegedly pertinent to the '038 patent by the designation "Lit. 3c."

The Defendents in Litigation 3 also raised allegations of inequitable conduct in relation to the procurement of:

- (1) the '253 patent for failing to (a) highlight U.S. Patent No. 4,570,624 to Wu, (b) disclose litigation related to the '247 patent, and (c) disclose EP 0077159 to Atkins, an article written by Jose Vich ("Anterior cervical interbody fusion with threaded cylindrical bone," *Neurosurg* 63: 750-753, 1985), and manuals by Muller, M.E. ("Manual of Internal Fixation: Techniques Recommended by the AO Group;" Second Edition, Expanded and Revised; pp. 3-20, 27-41, 53-58, 71-78, 94, 311, 320; Springer-Verlag; 1979), Hierholzer, G. ("Manual on the AO/ASIF Tubular External Fixator;" pp. 85-91; Springer-Verlag; 1985), and Heim, Urs ("Small Fragment Set Manual: Technique Recommended by the ASIF-Group;" pp. 5-7, 10, 20, 21, 30; Springer-Verlag; 1974);
- (2) the '437 patent for failing to (a) disclose the existence of and information surrounding litigation concerning inventorship issues with the subject matter of U.S. Patent No. 5,489,307 to Kuslich and (b) disclose U.S. Patent No. 2,842,131 to Smith, U.S. Patent No. 4,142,517 to Stavropoulos et al., U.S. Patent No. 4,677,883 to Lee, U.S. Patent No. 4,830,000 to Shutt, U.S. Patent No. 4,878,915 to Brantigan, U.S. Patent No. 4,943,291 to Tanguy, U.S. Patent No. 4,961,740 to Ray et al., and U.S. Patent No. 5,055,104 to Ray; and
- (3) the '038 patent for failing to (a) disclose the existence of and information surrounding litigation concerning inventorship issues with the subject matter of U.S. Patent No. 5,489,307 to Kuslich and (b) filing an allegedly misleading Rule 131 declaration.

Litigation 3, mentioned above, and Litigations 1 and 2, discussed in the Information Disclosure Statement dated January 14, 1999, are no longer pending. The jury in Litigation 2 found all asserted claims of the '253 patent valid in view of the art cited by the defendant. Litigations 1-3 were settled with the defendants in each litigation

retracting their assertions of invalidity and inequitable conduct. Discovery documents relating to the aforementioned litigations are available upon request.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that each or all of the listed documents are material or constitute "prior art." If the Examiner applies any of the documents as prior art against any claim in the application and applicant determines that the cited documents do not constitute "prior art" under United States law, applicant reserves the right to present to the office the relevant facts and law regarding the appropriate status of such documents.

Applicant further reserves the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application. If there is any fee due in connection with the filing of this Statement, please charge the fee to our Deposit Account No. 50-1066.

Respectfully submitted,

MARTIN & FERRARO, LLP

Date: September 23, 2003

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|---|-------------|--|--------------------------------------|---|----------------------|-------------------------------|
| Substitute for FORM PTO-1449 | SEP 29 | 3 | Attorney Docket Nu 101.0053-00000 | mber | Customer No 22882 |) . |
| INFORMATION DISC | LOSUREGIA | Na Agu | Applicant | | Application I | Number |
| (Use several sheets if necessary) Sheet 1 of 3 | | Gary K. Michelson Filing Date June 7, 1995 | | 08/480,908 | | |
| | | | | Group Art Ur | nit Examiner | |
| | | | | 3764 | M. Brow | |
| | l | J.S. PATEN | T DOCUMENTS | | | |
| EXAMINER DOCUMENT | T NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE II APPROPRIATE |
| Lit. 3b 3,719,186 | | 03/1973 | Merig, Jr. | | | |
| Lit. 3c 4,349,921 | | 09/1982 | Kuntz | | | |
| Lit. 3b/3c 4,570,624 | | 02/1986 | Wu | | | |
| Lit. 3c 4,714,469 | | 12/1987 | Kenna | | | |
| 4,759,766 | | 07/1988 | Buettner-Janz et al. | | | |
| 4,877,020 | • • | 10/1989 | Vich | | | |
| Lit. 3c 5,026,373 | | 06/1991 | Ray et al. | | | |
| Lit. 3a/3c 5,055,104 | · | 10/1991 | Ray | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | |
| 5,279,292 | | 01/1994 | Baumann et al. | | | |
| Lit. 3a/3c 5,489,307 | | 02/1996 | Kuslich et al. | | | |
| | FOI | REIGN PATE | ENT DOCUMENTS | | | |
| DOCUMENT | T NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | TRANSLATION (YES/NO) |
| Lit. 3a/3b/3c 0 077 159 | | 04/1983 | Europe | | | N/A |
| 0 162 005 | | 11/1985 | Europe | | | Yes |
| 0 179 695 | | 04/1986 | Europe | | | Abstract and Partial |
| 0599419 A2 | | 06/1994 | Europe | | | Abstract Only |
| 2 295 729 | | 07/1976 | France | | | UK Equivalent GB 1531487 |
| 2 581 336 | | 11/1986 | France | | | Abstract Only |
| 2 703 580 | | 10/1994 | France | | | Yes |
| 1961531 | | 07/1970 | Germany | | | UK Equivalent GB 1291470 |
| 24 46 039 | | 04/1975 | Germany | | | UK Equivalent GB 1492990 |
| ↑ 3101333 A1 | · · · · · · | 12/24/81 | Germany | | | Abstract Only |
| √ 3132520 A1 | | 06/1982 | Germany | | | Abstract Only |
| 3505567 A1 | | 06/1986 | Germany | | | Abstract Only |
| 36 08 163 A1 | • • | 09/1987 | Germany | | | Abstract Only |
| 41 04 359 A1 | | 08/1992 | Germany | | | US Equivalent 5,279,292 |

| | 43 02 397 A1 OLP & | 07/29/93 | Germany | | Abstract Only |
|-------------------|--|----------------------------------|--|---|---|
| | 1291470 | 10/1972 | Great Britain | | N/A |
| | 1492990 SEP Z 9 2003 N | 11/1977 | Great Britain | | N/A |
| | 1 140 61/ | 11/1978 | Great Britain | | N/A |
| | 1531487 TRADEMINE | 02/1982 | Japan | | US Equivalent 4,349,921 |
| | 60-31706 | 02/1985 | Japan | | Yes |
| | 60-43984 | 03/1985 | Japan | | Yes |
| | 61-122859 | 06/1986 | Japan | | US Equivalent 4,759,766 |
| | 62-155846 | 07/1987 | Japan | | Yes |
| | 1107854 | 08/1984 | Soviet Union | | Yes |
| | 1124960 | 11/1984 | Soviet Union | | Abstract Only |
| | 1217374 | 03/1986 | Soviet Union | | Abstract Only |
| | 1222254 | 04/1986 | Soviet Union | | Abstract Only |
| | 283078 | 05/1985 | Spain | | US Equivalent 4,877,020 |
| | 106 101 | 07/1939 | Sweden | | Partial and English Language Search Report |
| ì | OTHER DOCUMENTS (| Including Au | thor, Title, Date, Pertir | nent Pages, Etc.) | |
| Lit. 3a/3c | Cloward, Ralph B.; Surgical Technique | s for Lumbar I | Disc Lesions; Codman; | Signature Serial 3. | |
| Lit. 3c | Cloward, Ralph B.; Ruptured Cervical In Fusion (A.C.I.F.); Codman; Signature S | | Discs: Removal of Disc | & Osteophytes & Anterior Co | ervical Interbody |
| Lit. 3 | Cloward, Ralph B.; Recent Advances in Volume 2 Cervical Spine Operations; E | | | 85-293; German Society For | Neurosurgery: |
| Lit. 3a/3b χ | Otero-Vich, Jose M.; Anterior Cervical I Neurosurgery, November 1985, Volume | Interbody Fus e 63, No. 5. | ion with Threaded Cylin | drical Bone; pp. 750-753; Jou | urnal of |
| Lit. 3c | Hutter, Charles George; Spinal Stenosi Related Research; No. 193; The Associ | s and Posteri | or Lumbar Interbody Fu and Joint Surgeons. | sion; pp. 103-114; Clinical Or | thopaedics and |
| Lit. 3c | Lin, Paul M.; Posterior Lumbar Interbody Fusion; pp. 114-122; Charles C. Thomas; Springfield, Illinois. | | | | |
| Lit. 3c | Lin, Paul M.; Lumbar Interbody Fusion: 81, 98, 120, 146, 173, 180-184, 204, 22 | Principles ar 24, 225, 231; | nd Techniques in Spine Aspen Publishers, Inc.; | Surgery; Techniques and Co 1989. | mplications; pp. |
| Lit. 3c | Tan, S.B.; A Modified Technique of Ant Orthopaedic Surgical Techniques, Volu | | | ortical Allograft; pp. 83-93; Th | e Journal of |
| Lit. 3a/3b | Muller, M.E.; Manual of Internal Fixation Revised; pp. 3-20, 27-41, 53-58, 71-78 | | | | Expanded and |
| Lit. 3a/3b | Hierholzer, G.; Manual on the AO/ASIF | Tubular Exte | rnal Fixator; pp. 85-91; | Springer-Verlag; 1985. | |
| Lit. 3a/3b | Heim, Urs; Small Fragment Set Manua Verlag; 1974. | I: Technique | Recommended by the A | ASIF-Group; pp. 5-7, 10, 20, 2 | 21, 30; Springer- |
| Lit. 3c | Harmon, Paul H.; Anterior Excision and Lumbar Spine: Three- to Five-Year Re 26, J.B. Lippincott Company, 1963. | l Vertebral Bo sults in 244 C | dy Fusion Operation for ases; pp. 107-127; Clin | Intervertebral Disk Syndrom lical Orthopaedics and Relate | es of the Lower d Research, No. |

| EXAMINER | DATE CONSIDERED | | |
|-----------------|---|--|--|
| Lit. 3 | Canale, S. Terry; Campbell's Operative Orthopaedics; Volume 3, 9 th Edition; pp. 2191, 2216, 2459; Mosby, 1998. | | |
| Lit. 3a | Butts, M.K.; Biomechanical Analysis of a New Method for Spinal Interbody Fixation; 1987 Symposium, American Society of Mechanical Engineers, "Advance in Bioengineering", Boston, MA (December 13-18, 1987). | | |
| Lit. 3b | Bullough, Peter G.; Atlas of Spinal Diseases; Figure 5.7; J.B. Lippencott Company; 1988 | | |
| Lit. 3c | Harmon, Paul H.; A Simplified Surgical Technic for Anterior Lumbar Diskectomy and Fusion; Avoidance of Complications; Anatomy of the Retroperitoneal Veins; pp. 130-143; Clinical Orthopaedics and Related Research, No. 37, J.B. Lippincott Company, 1964. | | |

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

